Graduate student position, urban conservation biology, NC State University

The Youngsteadt Urban Ecology Lab in the Department of Applied Ecology at North Carolina State University seeks applications for a graduate student position starting in fall 2023. The student will lead funded research to examine effects of urbanization and climate change on the Crystal skipper butterfly, a rare species endemic to 50 km of NC coastal barrier islands. This position is on a rapid recruitment timeline. Review of applications will begin on December 21, 2022, and competitive applicants will be invited to apply to the NCSU Graduate School by January 15, 2023. A spring 2024 start date is also negotiable.

Key components of the research project include collecting butterfly demographic data, developing mechanistic population models for the Crystal skipper, and using a combination of aerial imagery and on-site sampling to determine how landscape-scale nectar availability influences butterfly habitat use. The student will work closely with a team of research and conservation partners at NC State University (Department of Applied Ecology and Center for Geospatial Analytics), the USGS Cooperative Fish and Wildlife Research Unit, and the NC Aquariums. The student will be part of a team that develops public outreach and communication products and prioritizes conservation actions for the Crystal skipper.

This position will be based at the coast during fieldwork (roughly April - August, 2024, 2025, and 2026), and in Raleigh, NC, during the academic year. The student will be supported by a combination of grant funds (current funds cover a competitive stipend, health insurance, and tuition for five semesters and three summers) and teaching assistantships. The student is also encouraged to apply for external fellowships.

Members of the Urban Ecology Lab work at the interface of urbanization and climate change. We focus on a variety of study systems, with an emphasis on invertebrates, plant-insect interactions, and thermal biology. Our goal is to understand and manage ecological responses to anthropogenic stressors, such as changes in climate, air quality, and habitat structure. The lab is committed to public outreach and extension based on research results.

NC State University provides a vibrant research and learning community, including a broad group of scholars studying urban systems from interdisciplinary perspectives, as well as proximity to UNC Chapel Hill, Duke University, the NC Museum of Natural Sciences, and Research Triangle Park. Raleigh is a great place to live and work, with a high quality of life and diverse cultural and recreational opportunities.

Competitive applicants for this position will have:

- Interest in urban ecosystems and conservation biology with a background in biology, ecology, entomology, remote sensing, or a related field
- Research and career goals that align with activities of the funded project
- Prior experience in research and data analysis
- Strong quantitative skills
- Ability to conduct fieldwork under rigorous conditions (hot, sunny, sandy, prickly)

- Well-developed communication and organizational skills
- Enthusiasm for public outreach and extension

Additional preferences:

- Applicants who have experience with GIS, remote sensing, demographic models, or landscape connectivity models should highlight this background in their cover letter.
- Candidates seeking a PhD are preferred, but those seeking an MS will be considered.
- A fall 2023 enrollment date is preferred, but candidates seeking a spring 2024 start date should mention this in their application.

To apply, please send a cover letter (1-2 pages) stating your research interests and qualifications, a CV, and the names and contact information for three references to Elsa Youngsteadt (ekyoungs@ncsu.edu) with subject line “Crystal skipper graduate position.” Include your last name in the file name of all attachments. If possible, please compile materials into a single pdf.

Review of applications will begin on December 21, 2022. For full consideration, please send materials by this date and no later than December 28, 2022. Top candidates will be invited to apply to the NCSU Graduate Program in Biology or FWCB, with a deadline of January 15, 2023.

We seek candidates from diverse backgrounds, and members of underrepresented groups are strongly encouraged to apply. NC State is an equal opportunity and affirmative action employer, and welcomes all persons without regard to sexual orientation or genetic information.